Mt. Carmel, Utah.
March 24, 1936.

Mr. T. H. Humpherys, State Engineer,
Salt Lake City, Utah.

Dear Sir:

When you met with the water users of Long Valley in Glendale last month you was confronted with a demand from the Mt. Carmel Irrigation Co. that automatic division gates be installed along the creek to regulate the water in the ditches of the three largest water users here. This proposal was opposed by the other companies so you promised to come down in June to see for yourself what the condition was before you decided on any course of action. You also asked the Mt. Carmel Irrigation Company to present a more definate statement of the plan they had in mind so you would have something more definate to work on.

I served as Water Commissioner here in 1931 and have had some experience in trying to get this job put over, so the Mt. Carmel Co. demanded that I write to you and present a "plan". The general outline of the plan proposed by Mt. Carmel is to install what you would call "Divided Flumes" at the point of diversion of each of the five ditches of the three irrigation Companies to measure out the proportion of water that belonged in each ditch and turn the rest on down the creek to the ditches where it belonged.

The amount of water that belongs to each of these ditches is as follows:

Glendale East Ditch	231 shares.	231 ÷ 11 = 21
Glendale West ditch	203 "	203 ÷ 11 = 18.5-
Orderville Ditch	265.5 "	265½ ÷11 = 24.1
Mt. Carmel W. Ditch	270 "	270 ÷ 11 = 24.5
Mt. Carmel E. Ditch	134 "	134 ÷ 11 = 12.2
Total	1103.5 "	1103.5÷11 100.3

Thus you see if the figure representing the number of shares of water owned by each of these ditches is divided by 11 it will give a set of figures that will total to approximatly 100 and provide a convenient ratio for making the divided flumes. In building the flumes we would have to use 1½" or perhaps 2" to represent each one of these 100 units, but just to illustrate we can use 1" for each unit.

Beginning with Glendale East Ditch at the head of the group we would build a flume 100" wide and partition off 21" to measure the water to be diverted into Glendale East Ditch and 79" to carry the other back into the creek again. All water in the creek would have to be run through the flume to be "divided". At the Glendale West Ditch a flume 79" wide would be made, 18.5" would be partitioned off to carry off the water to be diverted into the Glendale West Ditch and 60.5" to carry the water out into the creek for the ditches below. At Orderville a flume 60.5 wide would have a section 24.5" wide to take out Orderville's share and the rest would go on down to Mt. Carmel. At Mt. Carmel West Ditch a flume 36" wide would be divided with 24" for West Ditch and 12" to take the water on down to Mt. Carmel East ditch. This in brief is the plan and it all looks very

simple, but as you have correctly guessed, the problem of putting the plan into operation is not so simple.

The water users of Mt. Carmel have agitated for the installation of these flumes for quite a number of years, but agitating has, for the most part, been the extent of their exertions in that direction. In 1931 George M. Bacon came down and Mr. Lamb and Mr. Stevens presented this plan to him and got him to send out orders to Glendale and Orderville to install these flumes immediatly, at their own expense. Mr. Lamb promised, in the name of the Mt. Carmel Irrigation Co., that in case they refused or neglected to do it that the water users of Mt. Carmel would put up the necessary money and see the job through, but the money was to be collected from them by law in this case.

I was the Water Commissioner that year so the job of seeing that the work got done was put on my shoulders. A short naration of my experience will be enough to give you a general idea of the difficulties that are to be encountered:

1. As soon as Mr. Bacon promised to send out the order for the flumes to be installed Mr. Lamb went up the line and made some boasts about what "We" was going to force them to do. This arroused quite a little resentment and is one of the reasons it never got done.
2. Representatives of the Glendale Co. called attention to the fact that in their case it would be necessary to make two of these flumes in their ditches, and it would be rather expensive to build them and protect them from floods. They had no direct personel interest in building them at all as they usually managed to get their share of the water anyway. They proposed that all three companies should share the expense of building them and keeping them in working order in proportion to the No. of shares of water that each company owned. They also called attention to the fact that quite a bit of the water used by Orderville and Mt. Carmel sprang up below their point of diversion and the dividers could not be proportioned in any exact ratio to the number of shares they owned. In Orderville the problem was not nearly so difficult or expensive because there was not so much water to be handeled but they too thought that Mt. Carmel should share the expense. I thought this a reasonable proposal so I went with it to Mr. Osmer Lamb who was then President of Mt. Carmel Irrigation Co. He said "Didn't the State Engineer order them to put those dividers in at their own expense?" To which I could only answer "Yes." "Well then just let them sweat it out. The Engineer has got the clamps on them and he will make them do it".

   I knew that the Engineer had no way of forcing them to do it. All he could do was to give us his moral support and let us go ahead and do it ourselves. But faced with the opposition of Glendale and Orderville and lacking the suport of my own Company I was able to do exactly nothing and that was the amount that got done.

I myself have a little spot of land here in Mt. Carmel and I am interested in finding a plan to distribute the water so that we can get the share that is decreed to us without so much loss as we sometimes suffer, but personally I question the advisability of trying to force Glendale to install the flume dividers. In the case of Orderville I believe it can be done with benefit to both them and us. The divided flume will have to be so located that it will be protected from floods and at the same time not expose their ditch to any extra hazzards from floods.

Also provision must be made so the divider can be switched out of use and Orderville's water diverted in the ordinary way when water is not low enough to be measured so carefully. Orderville owns several shares of second class water to which she is entitled as soon as Mt. Carmel's quota of first class is filled. This could be more easily measured out to them if we had the divider to be used in addition to their measuring weir. I think too that Mt. Carmel should share the cost of building and maintaining this divider in Orderville according to the number of shares they own. If these conditions were met the opposition of the Orderville water users to the flume divider idea would be very much lessened, but I am not sure it would be completely overcome. I believe with a little moral and legal backing from the State Engineer we could get it done.

We have had a "Divider" at the head of Mt. Carmel West Ditch for a number of years to divide the water between the East ditch and the West ditch here. I have measured the water several times in the weirs below the divider and have always found it properly divided when the divider was clear and working properly. It is a great help when it is working, but it is not so very well protected from floods and when it gets burried up we don't always take time to dig it out again, so it is sometimes out of use.

When you was in Glendale you asked us why we didn't use the telephone to call up the water commissioner when we wanted his services. Someone explained that it was both quicker and cheaper to hunt him up in a car. I have been thinking since that it might pay us to build a private telephone line for use in compiling and checking up on water mesurements daily. I thought if a man in each town would take the mesurements in his ditches, daily, and telephone his findings in to the commissioner the commissioner could then quickly find the average and send out instructions if any changes needed to be made in either of the ditches. This might be easier and cheaper than for one man to chase up and down alone. This is just a might be idea. I havn't talked it over with anyone else to see what they thought about it.

This is a longer letter than I expected to write but I have tried to be as fair and reanonable as I could with a subject that is subject to some differences of opinion. Let me know if you think I can be of any further assistence to you.

Yours very truly,

Birt Gardner